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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,790	06/29/2001	Christopher Frank Codella	YOR920010317US1	4589

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MCGINN & GIBB, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER
CHANG, JUNGWON

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/893,790	CODELLA ET AL.
	Examiner	Art Unit	
	Jungwon Chang	2154	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _13 December 2004_.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-39_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-39_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _2/28/05, 4/8/05_.
4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This office action is responsive to amendment field on 12/13/2004. Claims 36-39

are added. Claims 1-39 are presented for examination.

2.   The cross references related to the application cited in the specification must be

updated (i.e., updated the relevant status with PTO serial numbers or patent numbers

where appropriate, see page 1).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by

Huberman et al. (US 6,115,718), hereinafter referred to as Huberman.

5.   As to claims 24 and 32, Huberman discloses a method of predicting a next item

in a database, to be requested by a user (col. 1, lines 21-41 and 49-65; indicates a

probability that a user will access a document during the course of browsing the

collection of linked documents; col. 2, lines 14-27; the "law of surfing" provides a model

of user traversal behavior in the document collection by indicating a probability that the

user will traverse to a next document; col. 2, lines 44-47; identify "relevant" documents

to one currently being viewed; col. 3, lines 20-29; col. 8, line 64 – col. 9, line 19), said

method comprising:

sensing a first item requested by a user (i.e., web page currently being viewing;

col. 1, line 48) and

applying a likelihood function to predict a second item to be requested by the

user (i.e., the "law of surfing" provides a model of user traversal behavior in the

document collection by indicating a probability that the user will traverse to a next

document; col. 2, lines 44-47; indicates a probability that a user will access a document

during the course of browsing the collection of linked documents; col. 2, lines 14-25;

identify "relevant" documents to one currently being viewed; col. 3, lines 20-29; the

"Recommend" feature provides a list of related web pages that a user may want to

retrieve and view based on the web page that they are currently viewing; col. 1, lines

46-48).

6.   As to claim 25, Huberman discloses said sensing is performed on a server side

of a computer system (i.e., system administrators; col. 4, lines 58-66).

7.   As to claim 26, Huberman discloses said item comprises a Web page (i.e., a list

of related web pages that a user may want to retrieve and view based on the web page

that they are currently viewing; col. 1, lines 46-48; col. 3, lines 30-43).

8.   As to claim 27, Huberman discloses caching said predicted second item (i.e., the

"law of surfing" provides a model of user traversal behavior in the document collection

by indicating a probability that the user will traverse to a next document; col. 2, lines 44-

47; indicates a probability that a user will access a document during the course of

browsing the collection of linked documents; col. 2, lines 14-25; identify "relevant"

documents to one currently being viewed; col. 3, lines 20-29; the "Recommend" feature

provides a list of related web pages that a user may want to retrieve and view based on

the web page that they are currently viewing; col. 1, lines 46-48).

9.   As to claim 28, Huberman discloses displaying the predicted second item is

displayed upon a user's request (col. 4, lines 7-8).

10.   As to claims 29-31, Huberman discloses estimating a direction of next items to

be requested based on projecting a vector in space based on at least two items having

been requested previously (fig. 5; col. 4, lines 41-47; col. 5, lines 34-47).

11.   As to claims 1 and 33, they are rejected for the same reasons set forth in claims

24 and 32 above. In addition, Huberman discloses predicting a subsequent document

which, with a highest degree of probability, is likely to be retrieved based on the first

document accessed (i.e., most relevant is an indication that it has a high likelihood to be

of interest to someone viewing the document.... identify "relevant" documents to one

currently being viewed; col. 3, lines 20-29; the "law of surfing" provides a model of user

traversal behavior in the document collection by indicating a probability that the user will

traverse to a next document; col. 2, lines 44-47; indicates a probability that a user will

access a document during the course of browsing the collection of linked documents;

col. 2, lines 14-25; the "Recommend" feature provides a list of related web pages that a

user may want to retrieve and view based on the web page that they are currently

viewing; col. 1, lines 46-48).

12.   As to claim 34, it is rejected for the same reasons set forth in claims 24 and 32

above. In addition, Huberman discloses a signal-bearing medium tangibly embodying a

program of machine-readable instructions executable by a digital processing apparatus

(i.e., software program for execution on a computer based system; col. 2, lines 48-50;

software instructions residing on a suitable memory medium for use in operating a

computer based system; col. 10, lines 34-45).

13.   As to claim 35, it is rejected for the same reasons set forth in claims 1 and 33

above. In addition, Huberman discloses a signal-bearing medium tangibly embodying a

program of machine-readable instructions executable by a digital processing apparatus

(i.e., software program for execution on a computer based system; col. 2, lines 48-50;

software instructions residing on a suitable memory medium for use in operating a

computer based system; col. 10, lines 34-45).

14.   As to claims 36 and 37, Huberman discloses predicting predicts said subsequent

document which is likely to be retrieved based on the first document accessed,

regardless of whether there is a hypertext link from the first document to the subsequent

document (col. 1, lines 21-41 and 49-65; indicates a probability that a user will access a

document during the course of browsing the collection of linked documents; col. 2, lines

14-27; the "law of surfing" provides a model of user traversal behavior in the document

collection by indicating a probability that the user will traverse to a next document; col.

2, lines 44-47; identify "relevant" documents to one currently being viewed; col. 3, lines

20-29; col. 8, line 64 – col. 9, line 19).

15.   As to claims 38 and 40, Huberman discloses automatically caching said

predicted subsequent document prior to the user's request for said predicted

subsequent document (col. 3, lines 31-43; col. 10, lines 17-34).

16.   As to claims 2 and 3, Huberman discloses estimating a direction in a navigation

pattern of spatial data retrieval by said user (i.e., asymptotic pattern of activation over

nodes will define the degree of predicted relevance of web pages; col. 1, line 66 – col.

2, line 8; col. 3, lines 24-29).

17.   As to claim 4, Huberman discloses automatically downloading a most likely to be

retrieval document to the user's browser (col. 3, line 60 – col. 4, line 4) before being

requested by the user (i.e., browser to load; col. 4, lines 5-8).

18.   As to claims 5 and 6, Huberman discloses utilizing an N-dimensional space

indexing technique to construct an indexed database of documents which are to be

retrieved by the user (fig. 5; i.e., indexing web pages; col. 7, line 59 – col. 8, line 17).

19.   As to claims 7 and 8, Huberman discloses direction of trajectory based on user's

traversals and traversals of other users (i.e., "law of surfing" provides a model of user

traversal behavior in the document collection by indicating a probability that the user will

traverse to a next document; col. 2, lines 44-47).

20.   As to claims 9-11, Huberman discloses when a user retrieves first and second

documents in sequence, the first document comprises an "origin" document of a

movement (i.e., a source page on a web site; col. 1, line 51) and the second document

comprises a "destination" document (i.e., relevant web page; col. 1, line 50), wherein

one of a trail count record entry is created in a search record index of the origin

document labeled with a unique resource identifier (i.e., URL; col. 3, lines 50-57) of the

destination document, and a trail count record is incremented, if a trail count record

already exists (col. 8, lines 3-17; i.e., number of "hits" a web page; col. 2, lines 9-11; col.

5, lines 40-47; col. 6, lines 42-45).

21.   As to claims 12-17, Huberman further discloses computing which points are

closest to the origin, using Euclidean distances (i.e., matrix, vector; col. 4, lines 41-47;

each entry in the i column, j row of a matrix represents the strength of connection

between page I and page j; col. 8, lines 3-17) and computing which documents are most

likely to be traversed next based on a previous usage of other users, by consulting trail

records of the index (col. 8, lines 44-63).

22.   As to claims 18-23, Huberman discloses providing a predictive Web caching

portal at a user side, to allow a Web Browser at said user (col. 3, line 60 – col. 4, line 4)

to determine which documents are likely to be retrieved next by the user (i.e., most

relevant is an indication that it has a high likelihood to be of interest to someone viewing

the document.... identify "relevant" documents to one currently being viewed; col. 3,

lines 20-29; the "law of surfing" provides a model of user traversal behavior in the

document collection by indicating a probability that the user will traverse to a next

document; col. 2, lines 44-47; indicates a probability that a user will access a document

during the course of browsing the collection of linked documents; col. 2, lines 14-25; the

"Recommend" feature provides a list of related web pages that a user may want to

retrieve and view based on the web page that they are currently viewing; col. 1, lines

46-48), said documents being linked by hypertext links and a hypertext link tag being

provided for links which contain a counter of a number of times that the user has

traversed that link (i.e., ranked lists of documents; col. 1, lines 40-42; number of "hits" a web page; col. 2, lines 9-11; col. 5, lines 40-47; col. 6, lines 42-45).

23.   Applicant's arguments filed on 12/13/2004 have been fully considered but they are not persuasive.

24.   In the remarks, applicants argued in substance that

(1) Huberman, on the other hand, does not relate to a "method of predictive directional Web caching", as claimed. Instead, Huberman merely discloses a method for predicting the frequency of document access in a collection of linked documents.

25.   Examiner respectfully traverses applicant's remarks.

As to point (1), In response to applicant's arguments, the recitation "method of predictive directional Web caching" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Furthermore, independent claims 32 and 35 do not include the recitation of a method of predictive directional Web caching. Moreover,

Huberman clearly discloses a method of predictive directional Web caching (indicates a

probability that a user will access a document; col. 2, lines 14-25; col. 2, lines 44-47;

identify "relevant" documents to one currently being viewed; col. 3, lines 20-29; col. 8,

line 64 – col. 9, line 19).

26.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

27.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jungwon Chang whose telephone number is (703)305-

9669. The examiner can normally be reached on 9:30-6:00 (Monday-Friday).

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John A Follansbee can be reached on (703)305-8498. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWC
May 13, 2004

VIET D. VU
PRIMARY EXAMINER